

**Colorado Department of Transportation**  
**Structure Inspection and Inventory Report (English Units)**

Highway Number (ON) 5D: 025A

Mile Post (ON)11: 209.205 mi

Bridge Key: F-16-OK

Inspection Date: 4/18/2011

Sufficiency Rating: 77.8 FO

Rgn/Sectn 2E/2M: 68  
 Trans Region 2T: 02  
 County Code 3: 031  
 DENVER  
 Place Code 4: 20000  
 DENVER  
 Rte.(On/Under)5A: 1  
 Signing Prefix 5B: 1  
 Level of Service 5C: 7  
 Directional Suffix 5E: 0  
 Feature Intersected 6:  
 BNSF RR R  
 Facility Carried 7:  
 RAMP TO I 25 ML  
 Alias Str No.8A:  
 Prll Str No. 8P  
 Location 9: 328.05117409  
 I 25/US 6 INTCHNG IN DENV  
 Max Clr 10: 99.99  
 BaseHiway Net12: 0  
 IrsinvRout 13A: 0000000000  
 IrsSubRout No13B: 00  
 Latitude 16: 39d 43' 28"  
 Longitude 17: 105d 00' 45"  
 Range18A: 68  
 Township18B: 68  
 Section18C: 4  
 Detour Length 19: 2.0 mi  
 Toll Facility 20: 3  
 Custodian 21: 1  
 Owner 22: 1  
 Functional Class 26: 11  
 Year Built 27: 1988  
 Lanes on 28A: 2  
 Lanes Under 28B: 0  
 ADT 29: 6,000  
 Year of ADT 30: 2005  
 Design Load 31: 6  
 Apr Rdwy Width 32: 30.0 ft  
 Median 33: 0  
 Skew 34: 0.00 °  
 Structure Flared 35: 1  
 Sfty Rail 36a/b/c/d: 1 1 1 1  
 Rail ht36h: 36 "in"

Hist Signif 37: 5  
 Posting status 41: A  
 Service on/un 42A/B: 6 2  
 Main Mat/Desgn 43A/B: 6 5  
 Appr Mat/Desgn 44A/B: 0 0  
 Main Spans Unit 45: 2  
 Approach Spans 46: 0  
 Horiz Clr 47: 27.0 ft  
 Max Span 48: 154.2 ft  
 Str Length 49: 311.1 ft  
 Curb Width L/R 50A/B: 0.0 ft 0.0 ft  
 Width Curb to Curb 51: 27.0 ft  
 Width Out to Out 52: 32.5 ft  
 Deck Area: 10,111. sq. ft  
 Min Clr Ovr Brdg 53: 99.99  
 Min Undrclr Ref 54A: R  
 Min Undrclr 54B: 27.0 ft  
 Min Lat Clrnce Ref R 55A: R  
 Min Lat Undrclr R 55B: 28.0 ft  
 Min Lat Undrclr L 56: 0  
 Deck 58: 7  
 Super 59: 8  
 Sub 60: 8  
 Channel/Protection 61: N  
 Culvert 62: N  
 Oprtng Rtg Method 63: 1 LF Load Factr  
 Operating Rating 64: 60.1  
 Inv Rtg Method 65: 1  
 Inventory Rating 66: 36.0  
 Asph/Fill Thick 66T: 003 "in"  
 Str. Evaluation 67: 8  
 Deck Geometry 68: 3  
 Undrclr Vert/Hor 69: 9  
 Posting 70: 5  
 Waterway Adequacy 7: N  
 Approach Alignment 72: 8  
 Type of Work 75A:  
 Work Done By 75B:  
 Length of Improvment 76: 0.0 ft  
 Insp Team Indicator 90B: BLUE TEAM  
 Inspector Name 90C: MAESA  
 Frequency 91: 24 months  
 FC Frequency 92A: -1  
 UW Frequency 92B: -1  
 SI Frequency 92C: -1  
 FC Inspection Date 93A:

UW Inspection Date 93B:  
 SI Date 93C:  
 Bridge Cost 94: \$ 0  
 Roadway Cost 95: \$ 0  
 Total Cost 96: \$ 0  
 Year of Cost Estimate 97:  
 Brdr Brdg Code/% 98A/B:  
 Border Bridge Number 99:  
 Defense Highway 100: 1  
 Parallel Structure 101: N  
 Direction of Traffic 102: 1  
 Temporary Structure 103:  
 Highway System 104: 1  
 Fed Lands Hiway 105: 0  
 Year Reconstructed 106: 0000  
 Deck Type 107: 1  
 Wearing Surface 108A: 6  
 Membrane 108B: 2  
 Deck Protection 108C: 1  
 Truck ADT 109: 5 %  
 Trk Net 110: 1  
 Pier Protection 111: #  
 NBIS Length 112: Y  
 Scour Critical 113: N  
 Scour Watch 113M:  
 Future ADT 114: 6,800  
 Year of Future ADT 115: 2025  
 CDOT Str Type 120A: CBGC  
 CDOT Constr Type 120B: 4.  
 Inspection Indic 122A:  
 Inspection Trip 122AA:  
 Scheduling Status 122B:  
 Maintenance Patrol 123: 7  
 Expansion Dev/Type124:  
 Brdg Rail Type/Mod 125A/B:  
 Posting Trucks 129A/B/C: 0 0 0  
 Str Rating Date 130: 12/15/1998  
 Special Equip 133: 1  
 Vert Clr N/E 134A/B/C: X 99.99 0.00  
 Vert Clr S/W 135A/B/C: X 99.99 0.00  
 Vertical Clr Date: 9/19/1991  
 Weight Limit Color: 139: 0  
 Str Billing Type: U  
 Userkey 1 - System: ONSYS  
 Userkey 7-Update Indic:

Inspector Name: MAESA

**Colorado Department of Transportation**  
**Structure Inspection and Inventory Report (English Units)**

Highway Number (ON) 5D: 025A \_  
Mile Post (ON)11: 209.205 mi

**Element Inspection Report**

Elm/En	Description	Units	Total Qty	% in 1	CS 1	% in 2	CS 2	% in 3	CS 3	% in 4	CS 4	% in 5	CS 5
26/4	Conc Deck/Coatd Bars	(SF)	10,111	0 %	0	100 %	10,111	0 %	0	0 %	0	0 %	0
104/4	P/S Conc Box Girder	(LF)	1,197	100 %	1,197	0 %	0	0 %	0	0 %	0	0 %	0
210/4	R/Conc Pier Wall	(LF)	68	100 %	68	0 %	0	0 %	0	0 %	0	0 %	0
215/4	R/Conc Abutment	(LF)	40	100 %	40	0 %	0	0 %	0	0 %	0	0 %	0
234/4	R/Conc Cap	(LF)	50	100 %	50	0 %	0	0 %	0	0 %	0	0 %	0
300/4	Strip Seal Exp Joint	(LF)	31	68 %	21	0 %	0	32 %	10	0 %	0	0 %	0
314/4	Pot Bearing	(EA)	6	83 %	5	17 %	1	0 %	0	0 %	0	0 %	0
321/4	R/Conc Approach Slab	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
325/1	Slope Prot/Berms	(EA)	1	0 %	0	100 %	1	0 %	0	0 %	0	0 %	0
326/4	Bridge Wingwalls	(EA)	2	100 %	2	0 %	0	0 %	0	0 %	0	0 %	0
331/4	Conc Bridge Railing	(LF)	656	100 %	653	1 %	3	0 %	0	0 %	0	0 %	0
340/4	Superstr Cnc Coating	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
341/4	Substr Conc Coating	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
342/4	Sign Attachment	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0

Elem/Env	Description	Element Notes
26/4	Conc Deck/Coatd Bars	3 inches of asphalt. Numerous mod. trans crks and several asph. patches that are impending potholes. Bottom of top slab, plywood forms left in place inside of CBG"s. See photos. Overhangs look good.
104/4	P/S Conc Box Girder	Interior: Access holes through webs have horiz. cracks 2 to 3 feet long and open 1/32 inches. Cell 2A Web B has horiz. cracks 1 to 3 feet above bottom slab, 1/32 inches. End walls at Abut. 1 have hairline horiz. cracks. Exterior looks OK except for efflor. from longit. crack on bottom flange and efflor. from 5 vert. cracks at Pier 3 between the pier walls. Light efflor. staining longit. between Cells 2E and 2F, bottom flange. Bottom flange at right edge in Span 1 has a small patch, there is also efflor. along bott. flange at A1. See photo. Minor scrapes (scratches) on bottom flange in Span 1, worse at mid-span. Timber forms & debris left inside Gir. 1A at P2 from Diaph. and top slab repair. See photos. No signifigant change to any crks listed, 2010 Inspection, entered all cells.
210/4	R/Conc Pier Wall	Pier 2 is monolithic with superstructure. Pier 2 at top, +/- 10 feet from right end, vert. crack open to 1/64 inches. Lots of grafitti.
215/4	R/Conc Abutment	Abut. 1, hairline vert. crack open to 1/64 inches near center of wall. There is no forward abutment.
234/4	R/Conc Cap	Pier 3 only - One hairline vert. crack on Span 2 side. Other vert. to diagonal cracks, Span 2 side, under Bearings C and D.
300/4	Strip Seal Exp Joint	Single gland joint at Abut. 1, open about 2 inches. Full of sand. 25 ft. of gland torn loose from armor and leaks down below. See pics. This is causing a debris and moisture problem for bearing 1B. Joint at Pier 3 is carried on the reports for structures F-16-OL and F-16-NO.
314/4	Pot Bearing	2 at Abut. 1, lots of dirt around 1B from torn joint seal above. 4 at Pier 3 (2 left and 2 right), indic. of movement / working, good.
321/4	R/Conc Approach Slab	Covered with asphalt, but no sign of settlement at this time.

**Colorado Department of Transportation**  
**Structure Inspection and Inventory Report (English Units)**

Highway Number (ON) 5D: 025A \_

Mile Post (ON)11: 209.205 mi

Elem/Env	Description	Element Notes
325/1	Slope Prot/Berms	Moderate erosion trough right side along A1. See photo.
326/4	Bridge Wingwalls	U-Type at Abut. 1. Right has a light vert. crack with efflor. on top section.
331/4	Conc Bridge Railing	Conc. Jersey barriers, Type R. Light vert cracks in rail, most have light efflor. on backside. Top of right spalled in Span 2 +/- 30 feet from Pier 3, no exposed rebar.
340/4	Superstr Cnc Coating	Minor peeling on rails.
341/4	Substr Conc Coating	Painted over graffiti on Abut. 1.
342/4	Sign Attachment	Directional Sign bridge F-16-RJ for I-25 was cast on to exterior of both left and right jersey barrier bridge rails at Pier 2.

**Maintenance Activity Summary**

MMS Activity	Description	Recommended	Status	Target Year	Est Cost
360.02	App SI & S	3/16/2010	-1	2010	1367

Fill in erosion hole/ trough along right side of abutment 1.

**353.07	Replace	4/18/2011		2011	10
----------	---------	-----------	--	------	----

Repair Joint along abutment 1.

**Bridge Notes**

Scupper at right rear corner completely filled with sand, drain is clogged. Scupper on left side at Pier 3 is partially filled and the top of drain tube is 1/2 way open. Box girder access in Span 2 at Pier 3, requires snoopers on the left side, and a 3/4 inch wrench. Either side in Span 1, is about 12 feet over step slope ground. A-40 setup on Rt side 2010, entered all girder cells.

**Colorado Department of Transportation**  
**Structure Inspection and Inventory Report (English Units)**

Highway Number (ON) 5D: 025A \_

Mile Post (ON)11: 209.205 mi

**Inspection Notes**

Time: 8:30	Temp: 47	Weather: Overcast
------------	----------	-------------------

**Scope:**

☒ NBI: ☒ Element: ☐ Underwater: ☐ Fracture Critical: ☐ Other: Type: Regular NBI

Inspector: MAESA

Inspection Team:

Inspection Date: 04/18/2011

\_\_\_\_\_  
Inspector

\_\_\_\_\_  
Inspector